24 August 2007

Joe Sonke
Ofcom
Riverside House
Southwark Bridge Road
London

Dear Joe

I write with regard to Ofcom's consultation on 'UK Broadband application for licence variation'. Whilst the matters covered in the paper are not necessarily of direct interest to ITV, we are concerned by the indirect implications of the proposals on our ability to continue providing PMSE services – specifically using wireless cameras.

This consultation paper centres around UK Broadband's request to increase transmitter power on its 3.5GHz allocations (3480-3500MHz and 3580-3600MHz). These are adjacent to the PMSE allocations licenced by JFMG (3400-3440MHz and 3500-3580MHz).

As far as we understand, UK Broadband wishes to alter its licence to support a mobile WiMAX service (IEEE 802.16e), with a transmitter power of +29dBW/MHz for the central stations (8kW in 10MHz channels) and -5dBW/MHz for the mobile terminals (3W). This represents a 15dB increase in power (250W to 8kW) and the UK Broadband variation request suggests it is planning to deploy a much denser network to support mobile terminals. UK Broadband has previously operated a relatively sparse, lower power, point-to-point broadband network.

We believe strongly that these proposals are relevant to us as PMSE / wireless camera users, because the 12 channels adjacent to UK broadband will be increasingly important when the 2500-2690MHz spectrum finally closes down. PMSE users currently have access to 36 channels below 3GHz but when the 2500-2690MHz spectrum is auctioned at the beginning of next year, the available spectrum below 3GHz will be reduced to 17 channels and congestion is therefore likely to be a major problem. The 12 channels at 3.5GHz are an important escape route for users who are prepared to invest in new equipment. Other PMSE allocations at 5GHz and beyond are not only more costly, but they are also not widely available, and do not work very well with existing DVB-T technology.

Using Ofcom's own receiver measurements, the UK broadband proposal is likely to cause interference to adjacent channel PMSE users within a range of between 1km and 41km, depending upon the receiver type and front end filter used. For the next adjacent channel, interference will extend over a range of between 60m and 1.8km. This could in effect reduce the available channels at 3.5GHz from 12 to 8, depending on how the UK Broadband base stations are deployed. This could be a significant problem in urban areas where a dense WiMAX network is more likely. Mobile terminals (5dBW) would cause interference to adjacent channel PMSE users within a range of between 100 and 800m depending on receiver/filter type. Furthermore, it is quite likely that 3W mobile terminals could cause unpredictable interference to wireless cameras operating in urban areas, e.g. for ENG operations.

There is also a potential co-channel interference problem that arises from the permitted out of band radiation (-43dBW/MHz, 0 to 3.5MHz from signal edge, -56dBW/MHz elsewhere). Whilst this is of less concern, we believe it will, nevertheless, cause difficulties within 160m radius of the WiMAX base station.

More generally, the technical concerns we have on this paper should be seen in the context of our belief that there is a pressing need to discuss the overall implications of a number of apparently unrelated Ofcom spectrum processes (and proposals in consultation) on the ability of those who operate wireless cameras to continue to access sufficient spectrum for their needs. Whilst not all these processes/proposals relate to spectrum that is used directly by wireless cameras, we believe the end result could be in a significant diminution of the spectrum available for wireless cameras. We are not aware that Ofcom has given any clear assurance about the availability of spectrum for wireless cameras as it has for other PMSE use.

Potential losses of spectrum for wireless cameras as a result of these processes will coincide with what Ofcom recognised in paragraph 3.31 of the PMSE consultation paper as *'a potentially large increase in the use of wireless cameras as demand for coverage of sporting and news events and the interactivity of news gathering are expected to increase significantly. At the same time, high-definition (HD) television is likely to increase demand for spectrum for these cameras'*. An increase in HD services in particular will result in reduced bandwidth with the implications on overall spectrum availability that will bring.

We do have a fear that spectrum policy in this area may not be being developed as systematically as it has been in other areas and that, almost inadvertently, significant damage might be done to news and other programme making in the UK. We are therefore keen to ensure we are fully aware of what is being proposed in the round by focusing discussion on the net effects of different, apparently unrelated, initiatives. In this context we believe that there would be real benefits in Ofcom taking a cross cutting approach to looking at the potential spectrum which might be available in future for wireless cameras. The alternative is that a combination of insufficient available spectrum for wireless cameras combined with a market based approach results in a serious shortage of supply and prices which are simply impossible to justify in anything other than exceptional circumstances given the relatively significant component which such costs would represent in often relatively small and fixed programme budgets.

Yours sincerely

Oliver Foster
Regulatory and Public Affairs Manager, ITV Plc